

① The vertex form of a parabola is $f(x) = \pm(x-h)^2 + k$.

Describe the effect of each variable on the graph, be as specific as possible.

② Sketch a graph of $f(x) = -(x-3)^2 + 2$ and describe how to locate the vertex of the parabola

$$f(x) = \pm (x-h)^2 + K$$

$-$
 $+$

horizontal shift

$$(x-3)^2 \xrightarrow{\text{rt.}}$$

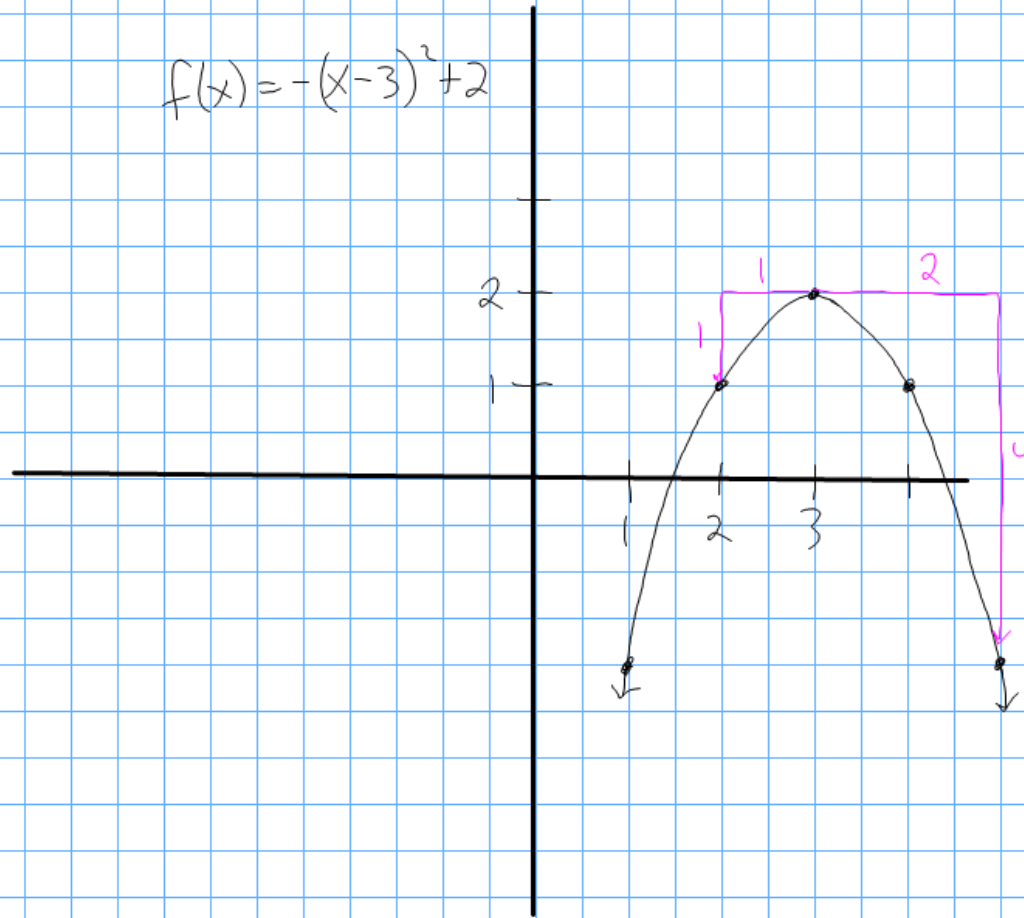
$$(x+3)^2 \xleftarrow{\text{left}}$$

vertical shift

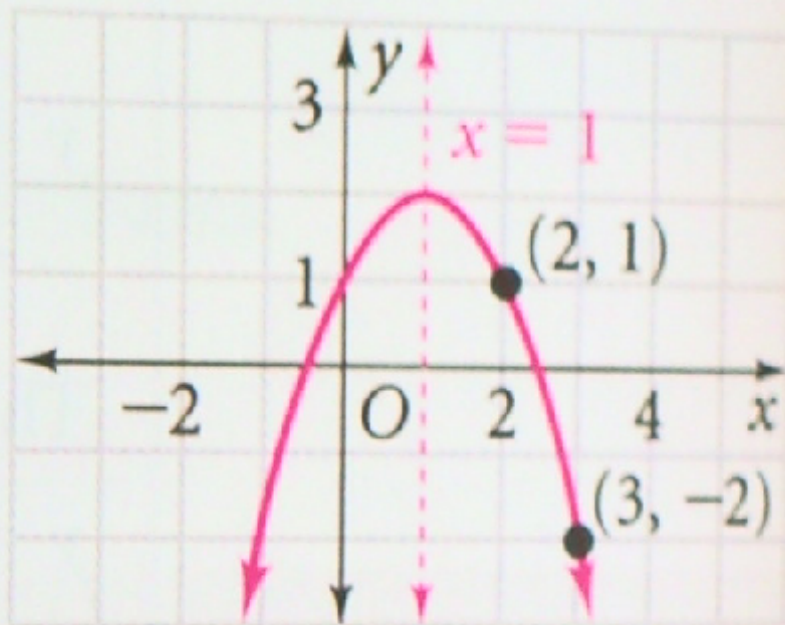
$$x^2 + 3 \uparrow$$

$$x^2 - 3 \downarrow$$

$$f(x) = -(x-3)^2 + 2$$



20.



$$y = -(x - 1)^2 + 2$$

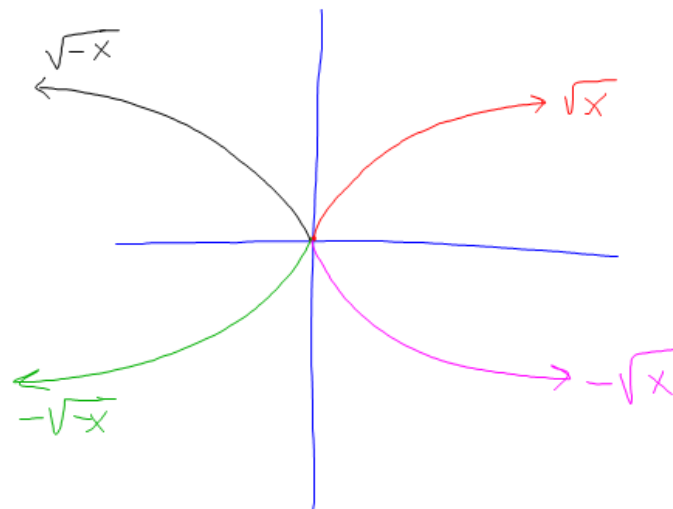
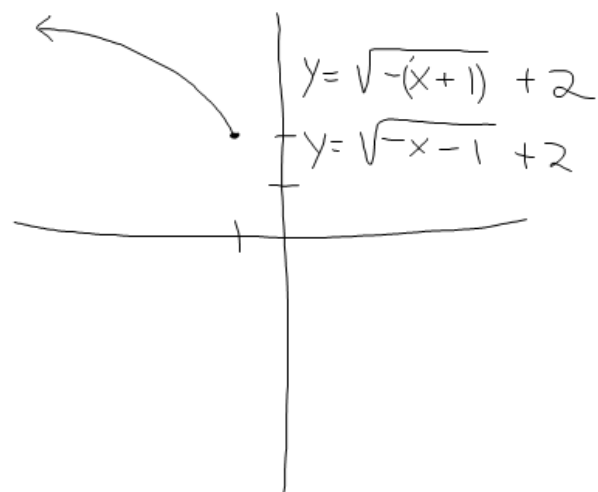
- Green Book
p.224 #1-8, problem set 5.5
- Tell me when you finish
- Read ex. 1 on p.223 then do p.225 #10 and p.220 #12

$$y = \pm \sqrt{\pm(x-h)} + k$$

see
pict.
at
right

$\sqrt{x-3}$ rt
 $\sqrt{x+3}$ lft

$+3$ \uparrow
 -3 \downarrow



- Turn in your work from today if you are done

- Turn in green book and calculator

- HW Blue Book
p. 417 #1-8, 12, 15, 37-39, 46

Green p. 34 #1-8